Contextualizing the Later Churches of Constantinople: Suggested Methodologies and a Few Examples

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In the introduction to his handbook on Byzantine architecture, Cyril Mango warns us that Constantinople "had in the course of the Middle Ages more than five hundred churches and monasteries. Of these about thirty have survived in varying degrees of ruination, that is, less than ten percent."[1] That meager ten percent, however, marks a considerably better rate of survival than that for other types of buildings in the Byzantine capital, most of which have vanished without a trace. What is more, we have virtually nothing resembling urban archaeology to assist us in visualizing the historic city. Obviously, we architectural historians are not playing with a full deck, and, for the uninitiated, the buildings that have vanished completely often seem more interesting than those that remain. The surviving churches have typically been studied in isolation. Although we may be able to reconstruct the complicated movements of the liturgy within the interior, we are completely lost when we step outside the front door. The churches must have been constructed with some regard to existing buildings, the street system, and the urban population—that is, they must have responded to the existing fabric of the city. But is it possible for modern scholars to somehow reintegrate these isolated structures into the context of the society that created them?

In the following pages, I offer three possible approaches to the later monuments of Constantinople, which may be pursued with varying degrees of success. The first approach might be called topographical. Something similar has been employed by text-based scholars concerned with historical geography in an attempt to position the hundreds of unsecured placenames into the ever-changing jigsaw puzzle of the Byzantine city. A second approach takes history as its context. Accordingly, the evolution of the forms of an individual building over a period of time might be understood as a reflection of larger urban concerns. A third method of analysis concentrates on construction: a careful study of building fabric tells us about the masons and their working methods, and this might also help provide a human context for the churches of Constantinople. In developing these three approaches to the Byzantine monuments of Constantinople, the following paper is divided into three unequal sections. Although the discussion is

[1] C. Mango, *Byzantine Architecture* (New York, 1976), 11.

limited to a select number of examples, the methodologies proposed here could be effectively applied to numerous other buildings.

Topography

As an architectural historian, my approach to the historical geography of Constantinople is slightly different from that of the text-based scholar. Rather than privileging the text, I begin with the building, with the physical clues preserved on the site. Fragmentary foundations, terrace walls, orientations of buildings, positions of portals, and other details can be reassembled to suggest the immediate context of the monument in question. I shall here limit myself to a single example, the site I know best, the Kariye Camii, the Byzantine monastery of the Chora (Fig. 1).[2] It may be possible through a careful study of the evidence to fix some of the monastic boundaries and perhaps also the locations of other monastic buildings, as well as to set the monastery into a larger urban context.

The main entrance to the Chora monastery was to the south of the church, probably directly south of the belfry, near the present parking lot for tour buses. In 1979, the remains of a cistern were visible in this area, about 60 meters from the building.[3] The extrados of a domical groin vault constructed of brick was exposed before the porch of a neighborhood house, its concrete steps partly laid over and partly cut into the vault. A small trap door was apparently originally intended for the removal of water from the area below the vault. A marble column shaft lay nearby. Local tradition alleges the cistern was a tunnel leading to Hagia Sophia. Before it could be properly recorded, however, the cistern was bulldozed, in the early 1980s, to create the parking lot. Yet, it was not completely destroyed: another part of it was removed in 1996 when the parking lot was widened, and the last remaining portion is now concealed behind a retaining wall.

This hapless ruin is significant because when Stephan Gerlach visited the Chora monastery in 1578, he saw in the same area a dry cistern in which the Jews were spinning and preparing silk.[4] It was located by a fallen wall and the "noble gate" to the monastery. The site plan by Alexander Rüdell, drawn at the beginning of the twentieth century, shows a Byzantine wall in this area.[5] A street from this point must have connected with the north Mese near the cistern of Aetius. This route of access would explain why Gerlach misidentified the Chora as the "Monastery of Aetius," and why the troops of Fatih Mehmet were able to find their way to the Chora so easily immediately upon entering the city in 1453.[6]

In some unpublished drawings that Cyril Mango brought to my attention, Ernest Mamboury recorded the remains of Byzantine walls in the same area as Rüdell's wall (Figs. 2–5). About 25 meters east of this point, Mamboury also recorded the remains of what he called the *hagiasma* of John the Baptist. The first drawing shows the position of the remains in relationship to the southwest corner of the Kariye, where the base of the

[2] R. Ousterhout, *The Architecture of the Kariye Camii in Istanbul,* DOS 25 (Washington, D.C., 1987), esp. 4–6.

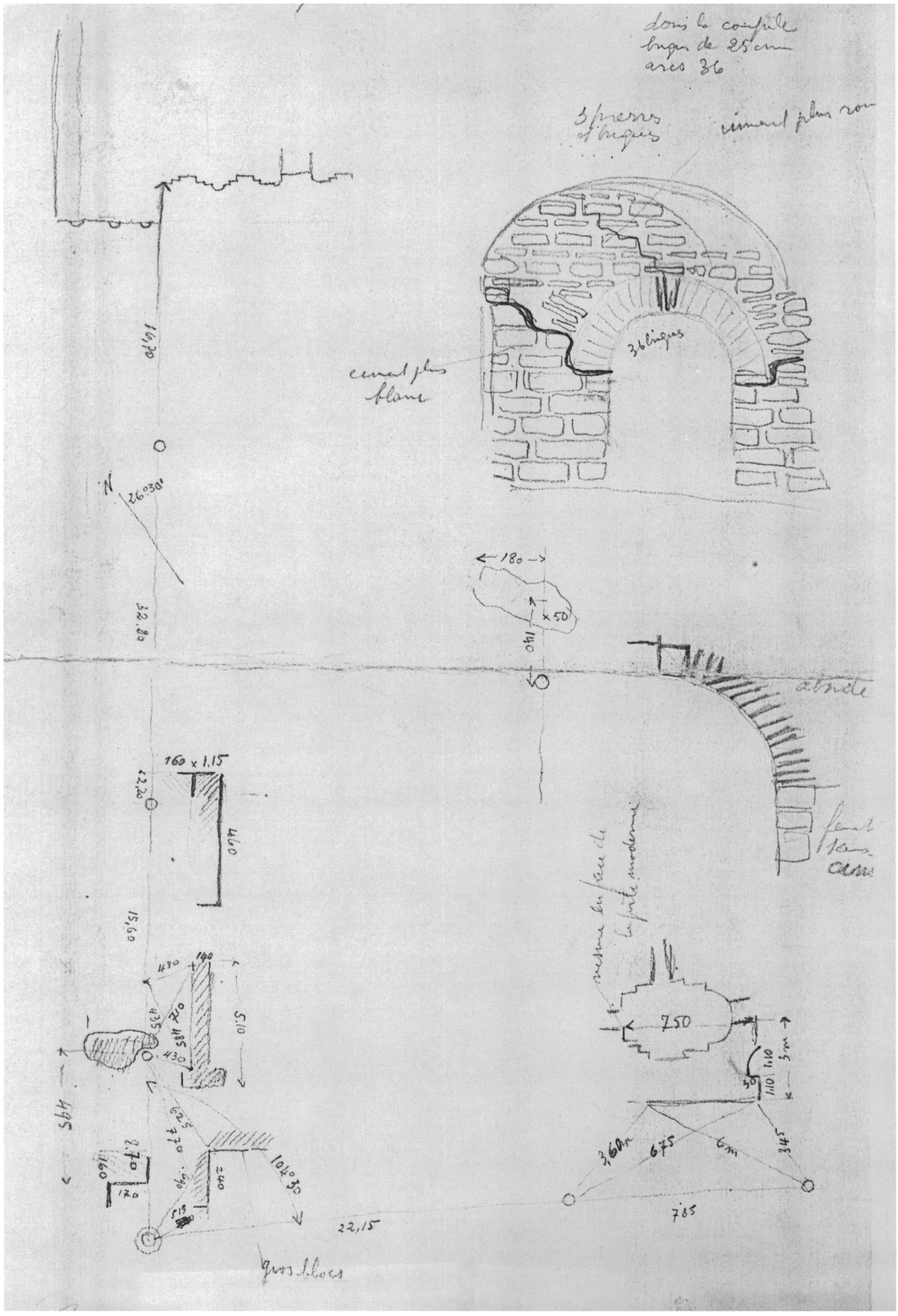
[3] R. Ousterhout, "A Sixteenth-Century Visitor to the Chora," *DOP* 39 (1985): 117–24, esp. 120 and fig. 3.

[4] *Stephan Gerlachs dess Aeltern Tage-Buch* (Frankfurt, 1674), 455–56; discussed by Ousterhout, "Visitor to the Chora," 120.

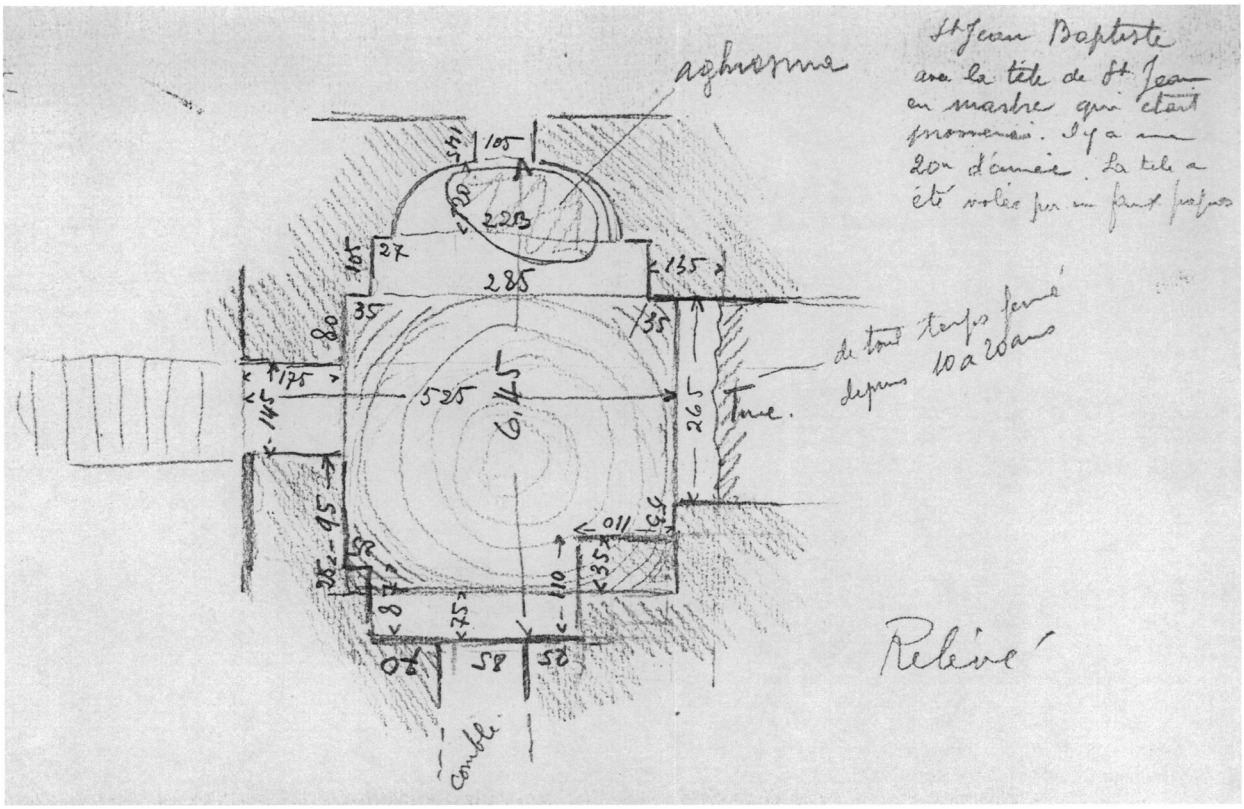
[5] A. Rüdell, *Die Kahrie-Dschamisi in Constantinopel: Ein Kleinod byzantinischer Kunst* (Berlin, 1908), fig. 1.

[6] Ducas, *Historia Turco-Byzantina,* 39.13–15, trans. H. J. Magoulias, *Decline and Fall of Byzantium to the Ottoman Turks* (Detroit, 1975), 224–25.

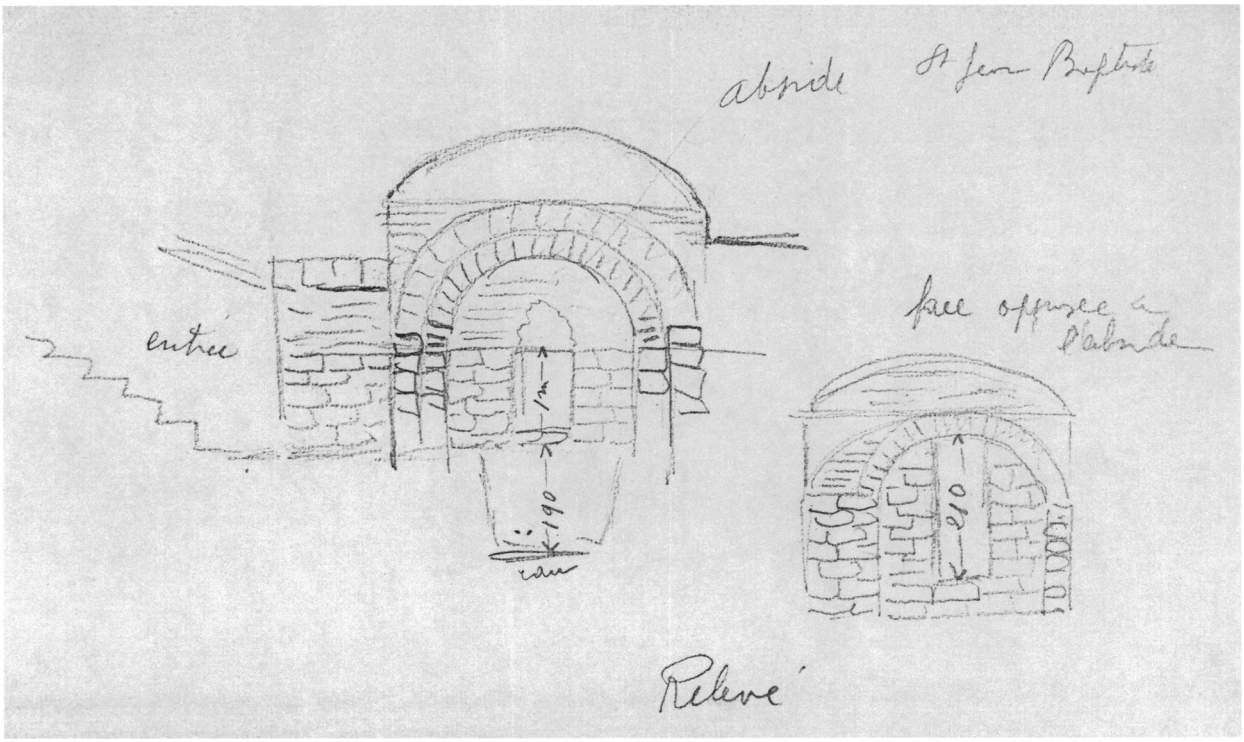
1 Istanbul, Chora (Kariye Camii) seen from the southeast



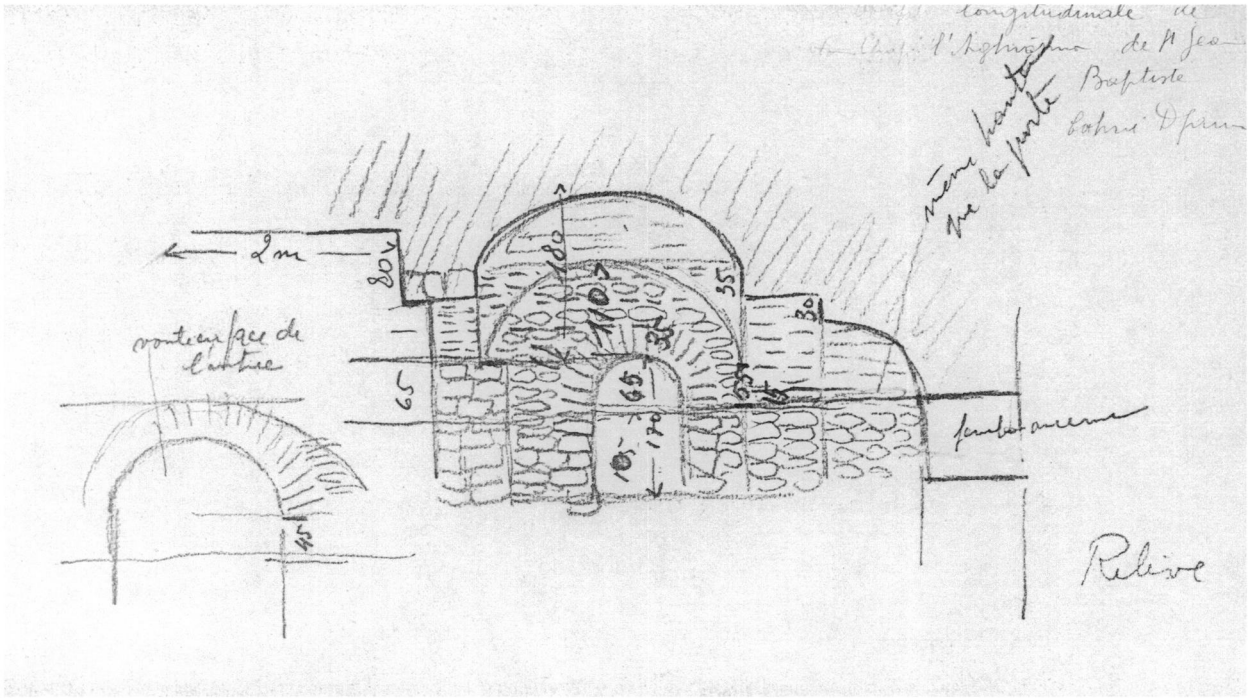
2 Sketch by E. Mamboury showing the *hagiasma* of St. John (courtesy of Cyril Mango)



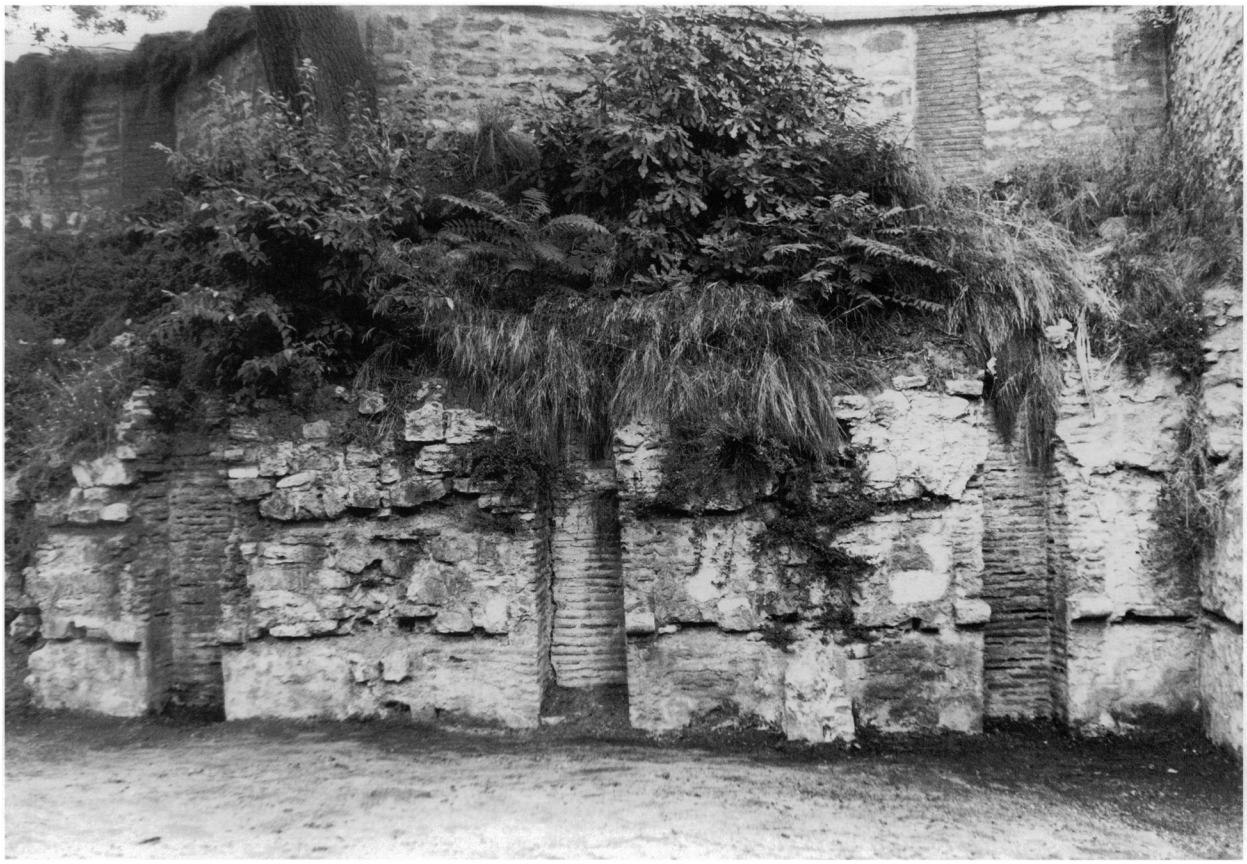
3 Sketch by E. Mamboury showing the *hagiasma* of St. John (courtesy of Cyril Mango)



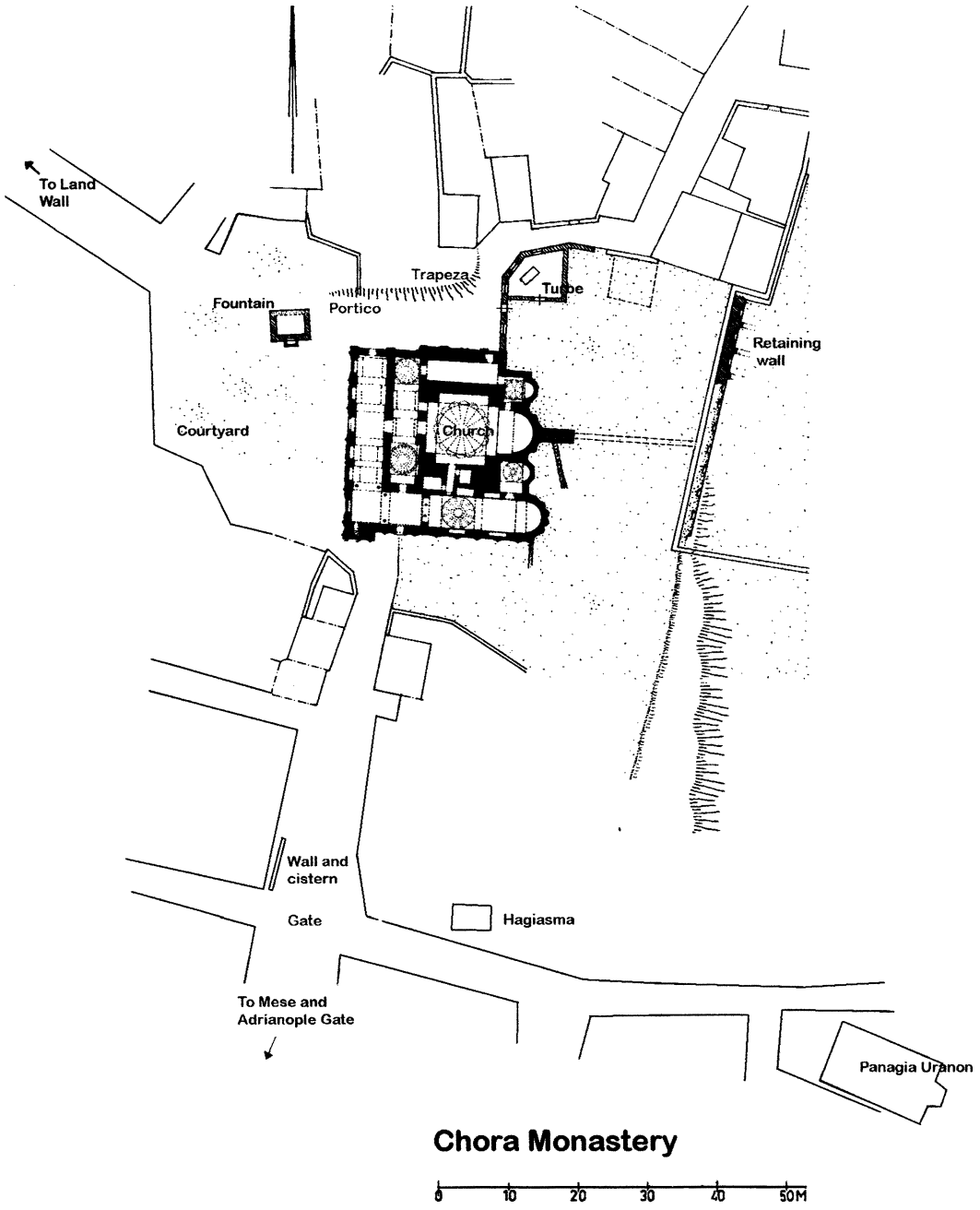
4 Sketch by E. Mamboury showing the *hagiasma* of St. John (courtesy of Cyril Mango)



5 Sketch by E. Mamboury showing the *hagiasma* of St. John (courtesy of Cyril Mango)

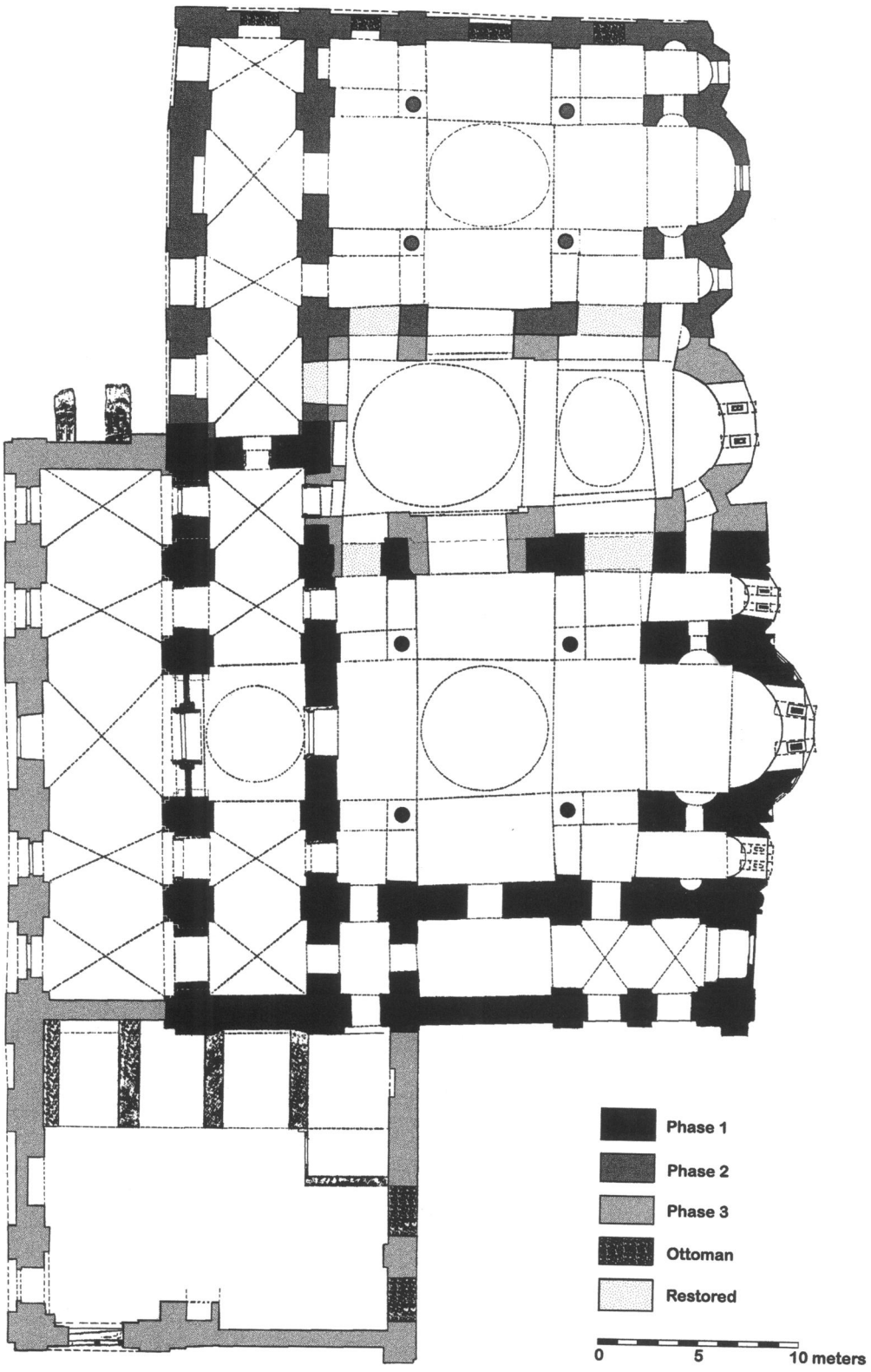


6 Retaining wall to the east of the Kariye Camii

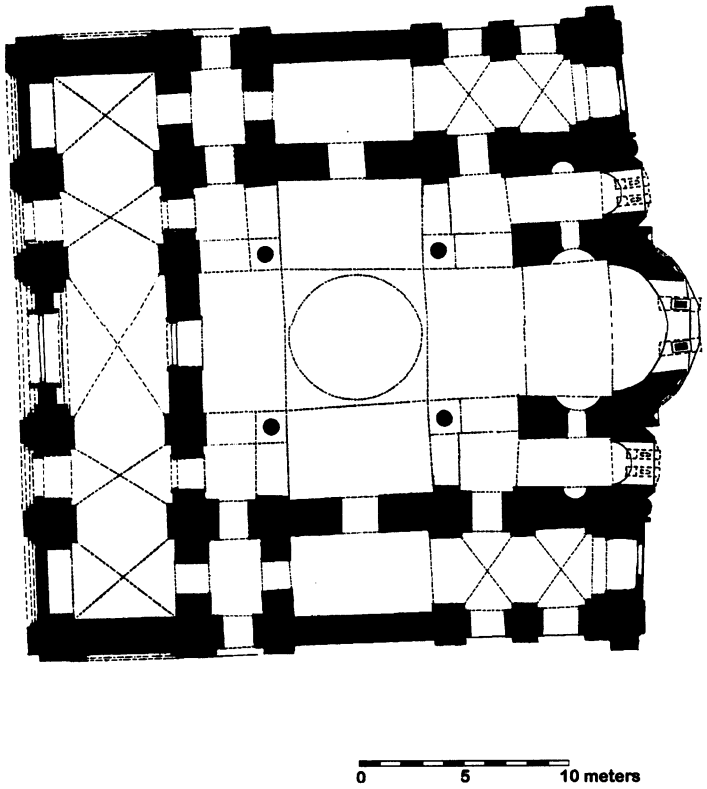


7 Plan of the Chora area of Istanbul, showing positions of monastic components (redrawn after W. Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* [Tübingen, 1977], fig. 159)

8 Chora (Kariye Camii), mosaic of the Virgin Blachernitissa

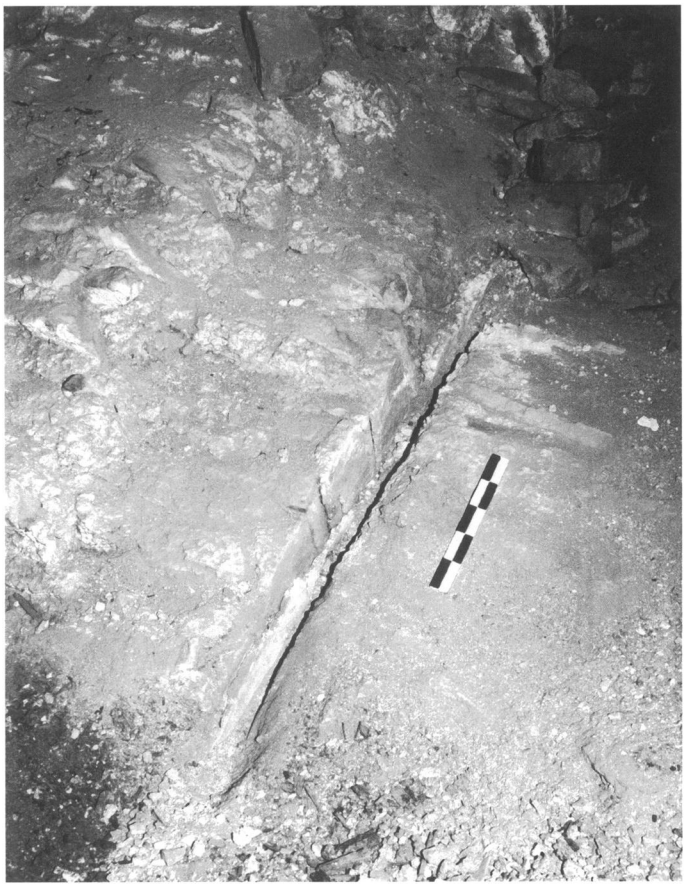


9 Istanbul, Pantokrator (Zeyrek Camii), plan showing three phases of development, ca. 1118–36



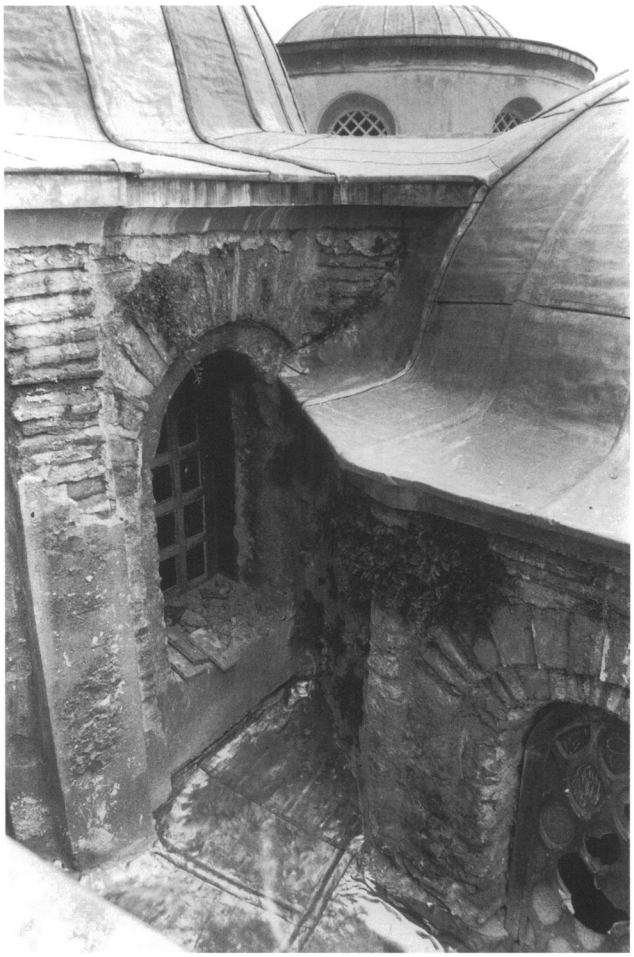
10 Pantokrator, hypothetical plan of the first phase, begun ca. 1118

11 Pantokrator seen from the minaret, with the south church in the foreground



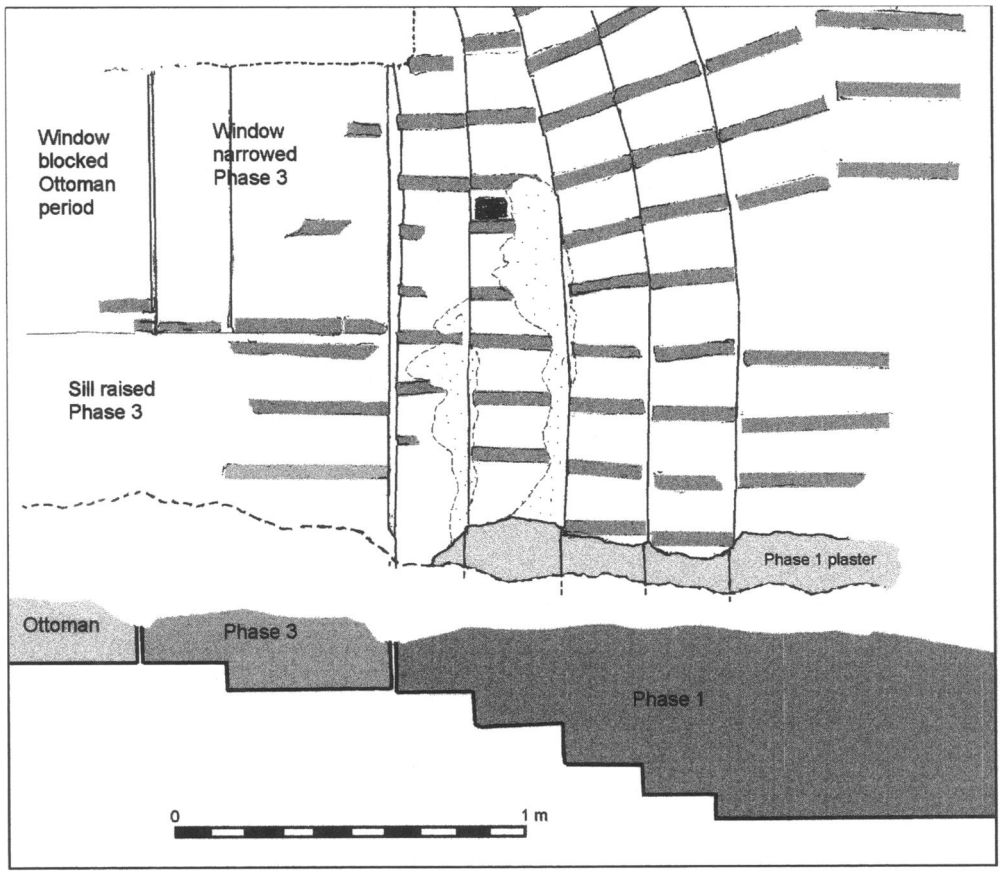
12 Pantokrator, detail of vaulting extrados showing the joint between the galleries of the south church on the left (Phase 1) with plaster surface preserved and the north church on the right (Phase 2)

13 Pantokrator, detail showing the joint between the gallery facade of the south church (left, Phase 1, with plaster surface preserved) and the dome of the middle church (right, Phase 3)

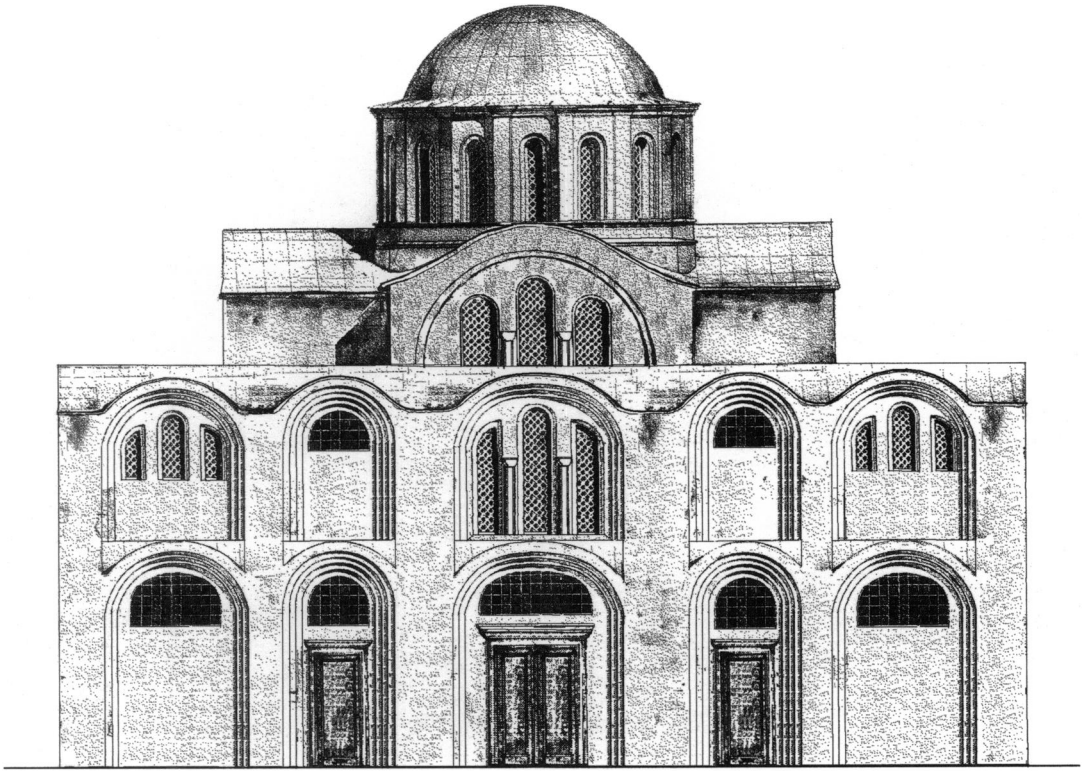


14 Pantokrator, view of the domes of the middle church, from the southeast

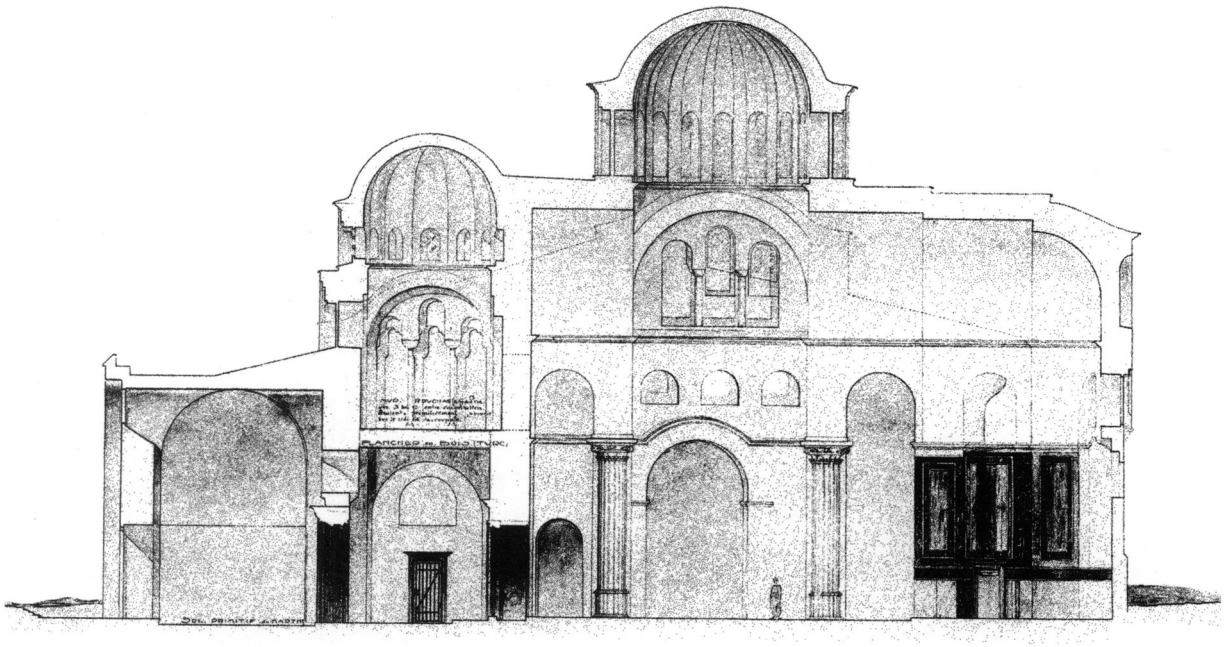
15 Pantokrator, interior of exonarthex, looking north



16 Pantokrator, detail drawing of the central arcade of the south narthex gallery, beneath the modern roof, showing Phase 1 stepped pilasters and Phase 3 modifications in plan and elevation



17 Pantokrator, hypothetical reconstruction of the west facade of the south church (Phase 1) (based on J. Ebersolt and A. Thiers, *Les églises de Constantinople* [Paris, 1913], pl. XLVIII)



18 Pantokrator, longitudinal section through south church, looking north, showing narthex dome and light well (Ebersolt and Thiers, *Les églises de Constantinople*, pl. XLIII)

belfry projects (Fig. 2, left half and bottom). Another drawing shows the details of the plan of the *hagiasma,* with a note concerning a marble head of St. John that had been stolen (Fig. 3). Yet another shows the transverse section, with the main access by stair to the north; the depth of the *hagiasma* is given as 1.90 meters below the floor (Fig. 4). The longitudinal section includes a blocked vaulted extension to the west (Fig. 5). The small, apsed chamber was covered by a domical vault and looks suspiciously like the substructure for the *diakonikon* of a church. In fact, this may have also been a part of the monastery, but unfortunately these ruins have disappeared with the urban development of the area.

The situation of the main entrance to the Chora monastery may also help to explain certain features in the design of the church. The belfry, decorated with the monograms of the founder, seems to have been positioned in direct visual relationship to the entrance (Fig. 1), and this route of access might also explain the amount of detail devoted to the south facade and the significant position of the south portal.

To the east of the Kariye Camii is a retaining wall, below the present garden wall (Fig. 6).[7] It is lined with niches flanked by cut-stone corbels, and with broken masonry indicating projecting spur walls spaced at about 2.6-meter intervals. For a brief moment when I first saw this wall, I thought I had discovered the remnants of the Byzantine monastic cells, with each niche forming a fireplace within the individual cell. On the other hand, if this was an important residential area of the monastery, it would have been facing the wrong way—that is, away from the church and the functional center of the monastery. Moreover, the construction does not match anything else at the site, and it may well be later in date. Although the niches are lined with brick, the wall is of a rough stone construction, broken by the lines of reinforcing beams. Nevertheless, this terrace wall may mark the position of the eastern limit of the monastery, at the point where the ground falls sharply away.

Other buildings lay immediately to the north of the Chora church, both in the Byzantine and Ottoman periods. On the north facade of the narthexes, several details are preserved: brackets above the north exonarthex door suggest that it connected to something, perhaps a portico of light construction.[8] On the north facade of the inner narthex, several metal pins of the type used to anchor marble revetments are set into the wall. These only appear at this point on the exterior, and they suggest that this might have been an internal surface—that is, where another building abutted the church. To the northeast, lies a small Ottoman *türbe,* recorded to be the location of the former *imaret,* or soupkitchen, of the Kariye mosque. As the Ottomans normally adapted Christian buildings to related Muslim functions, this may have been the location of the *trapeza* and kitchen of the Chora monastery.[9]

To the west of the church was a broad courtyard, still evident in Gerlach's day (Fig. 7). The west wall of the monastery must have been somewhere before the land wall, for there was probably a street along the inside of the fortification. This street would have led from Adrianople Gate to the Tekfur Saray and the Blachernai palace further to the

[7]See the plan in W. Müller-Wiener, *Bildlexikon zur Topographie Istanbuls* (Tübingen, 1977), fig. 159.
[8]Ousterhout, *Architecture,* 86–87 and fig. 147.
[9]As suggested by Ç. Gülersoy, "Kariye," *Arkeoloji ve Sanat* 1.2 (1978): 18–22.

north. There may have been a monastic gate in the northerly direction as well, considering the well-documented connections between the Chora monastery and the Blachernai.

The connection of the Chora to the Blachernai and to the land walls had important symbolic overtones as well. Before the fourteenth century, the monastery had been supported by the imperial family, and its new founder, Theodore Metochites, sought to link himself as closely as possible to it. The monastery was dedicated to the Virgin, and Metochites referred to both monastery and Virgin as his protection and refuge. These ideas are expressed in the well-known image of the Virgin positioned above the main entrance to the church (Fig. 8).[10] She is of the Blachernitissa type, repeating the significant features of a miraculous protective icon kept at the imperial church of the Blachernai, which also housed the robe of the Virgin, the sacred palladium of the city. Both the robe and the icon were paraded around the walls when the city was under siege. In the Chora image, the Virgin's cascading robe once framed a view westward toward the land walls, emphasizing this association. The Virgin was thus the imperial protector of both Theodore Metochites and his monastery—and she was also the protector of the city and its walls. The mosaic helps us situate the monastery, at least symbolically, into a broader urban context. Like the Zoodochos Pege and Blachernai churches, the Chora offered another spiritual outpost for the defense of the city and its walls. It was, significantly, at the Chora that the protective icon of the Virgin was housed during the final siege of the city.[11]

History

In our discussion of the Chora, our attempt to establish its urban context took into consideration outlying remains from a variety of periods that may have been associated physically or symbolically with the church. In fact, older remains survive directly under the building as well. Substructures dated to the sixth and ninth centuries determined the position of the present building, whose superstructure may be dated to rebuildings of the eleventh, twelfth, and fourteenth centuries.[12] The site was of such significance that it was reemployed repeatedly in spite of its instability, which resulted in collapses and fractures, and prompted the construction of the prominent yet ineffectual flying buttress on the east facade (Fig. 1).[13]

The significance of its site is not something unique to the Chora, and this fact serves to introduce a second method of contextualizing the churches of Constantinople that might be called historical. Few monuments in the capital were limited to a single phase of construction, and the process of growth and change within an individual building often reflects larger themes in the evolution of the city. For example, the site of the Myrelaion church evidences any number of urban transformations. In its first phase, it supported a late Antique rotunda of uncertain designation, probably a palace vestibule.[14]

[10] R. Ousterhout, "The Virgin of the Chora," in *The Sacred Image East and West,* ed. R. Ousterhout and L. Brubaker (Urbana-Chicago, 1995), 91–109.

[11] Ducas, *Historia,* 39.13–15.

[12] Ousterhout, *Architecture,* 12–15 and pls. 41–48.

[13] Ibid., 85.

[14] C. L. Striker, *The Myrelaion (Bodrum Camii) in Istanbul* (Princeton, 1981), 13–16 and pl. 26; R. Janin, *La géographie ecclésiastique de l'Empire byzantin,* vol. 1, *Le siège de Constantinople et le patriarcat œcuminique,* pt. 3, *Les églises et les monastères,* 2nd ed. (Paris, 1969), 351–54.

This was filled with a colonnaded cistern to form the substructure for a palatial residence in the early tenth century, and an additional substructure was added to support the adjoining private chapel. The difference in scale between the late antique palace and middle Byzantine one is clearly evident—with the whole of the latter sitting atop the vestibule of the former. The private chapel became the setting for the tombs of Romanos Lekapenos and his family, marking a change in imperial burial practices. And the whole *oikos* was converted to a nunnery after Romanos' accession to the throne; the conversion of secular properties was a common occurrence in the middle Byzantine era. In the Palaiologan period, the substructure of the chapel, which previously had been unused, was outfitted as a mortuary chapel, evidence of the late Byzantine concern for privileged burials.[15]

The church of St. Euphemia at the Hippodrome underwent a similar evolution, reflecting in turn the urban transformations around it.[16] The area of the Kalenderhane Camii, carefully studied by Striker and Kuban, had an equally long and complex history.[17] The reuse and redevelopment of numerous late antique sites and establishments represent important aspects of urban continuity into the medieval period, as Paul Magdalino has recently emphasized.[18]

Because it was raised on tall substructures, the Myrelaion church has remained standing in splendid isolation, while almost all other churches in the capital were expanded with annexes. In the Palaiologan period, the most important constructions were additions to existing churches. This has led to the assumption that late Byzantine architectural production in the capital was restricted by the poverty of its citizens, who could no longer afford to build complete churches. Should we assume that the inhabitants of Thessalonike, Arta, Mistra, Trebizond, Messembria, and elsewhere could afford to do what the citizens of Constantinople could not? We must recall that of the more than five hundred ecclesiastical structures known from the texts, the vast majority were in existence before the Latin occupation. Although many needed refurbishing in the final centuries, the city certainly did not need more churches. Thus, we must find a different explanation for the development of the Palaiologan church complexes. Clearly, all of them provided prominent spaces for prestige burials, but I offer also some other historical explanations.

The first is the significance of the Pantokrator monastery, the imperial mortuary church of the Komnenoi, that set the standards for Palaiologan architecture (Fig. 9). The church complex grew by accretion, with its three churches, serving three different functions, built in rapid succession in three phases between 1118 and 1136 (as will be discussed in additional detail below).[19] In its first phase, the church consisted of a monumental

[15]Striker, *Myrelaion,* 29–31.

[16]R. Naumann and H. Belting, *Die Euphemia-Kirche am Hippodrom in Istanbul und ihre Fresken,* IstForsch 25 (Berlin, 1966).

[17]C. L. Striker and Y. D. Kuban, *Kalenderhane in Istanbul: The Buildings* (Mainz, 1997), esp. 7–16, by A. Berger.

[18]P. Magdalino, *Constantinople médiévale: Études sur l'evolution des structures urbaines, TM,* Monographies 9 (Paris, 1996), esp. 40–48.

[19]A. H. S. Megaw, "Notes on Recent Work of the Byzantine Institute in Istanbul," *DOP* 17 (1963): 333–64; Janin, *Églises,* 515–23; see also R. Ousterhout, Z. Ahunbay, and M. Ahunbay, "Study and Restoration of the Zeyrek Camii in Istanbul: First Report, 1997–98," in this volume.

block, measuring approximately 100 Byzantine feet on each side (Fig. 10). This contrasts dramatically with the familiar jumble into which it very quickly grew. In its final form, the significance of the Pantokrator was expressed by its complexity; separate functional spaces are clearly distinguished on the exterior, identified by their distinctive apses and domes, which were prominent features on the urban skyline. In effect, as the Pantokrator grew, complexity replaced monumentality as the primary visual expression. We might compare the Pantokrator to the contemporaneous descriptions of the mansions of the wealthy, the great *oikoi* of the period, which the texts claim to have been like "cities within the city" or "resembling cities in magnitude and not at all unlike imperial palaces in splendor."[20]

Palaiologan architecture followed suit, as the Palaiologoi associated themselves with the Komnenoi. The Lips monastery was expanded by the dowager empress Theodora toward the end of the thirteenth century to become their dynastic mausoleum. A south church and an ambulatory were added in two closely related phases.[21] Following the model of the Pantokrator, there is little attempt at visual integration. The building complex is distinguished by an irregular row of apses along its east facade and is topped by an asymmetrical array of domes. The parts read individually, with a marked contrast between the middle and late Byzantine forms.

The same contrasts are evident at the Chora, and I would argue that the lack of integration, the contrast and abrupt juxtaposition of old and new, was intentional (Fig. 1). In all of the Palaiologan complexes, the new portions may be understood as a response to history, an attempt to "build" a symbolic relationship with the past. The new additions never obscure the older edifice but are joined to it in a way that seems to respect its character. At the Chora, for example, in spite of stylistic differences, the domes over the naos and parekklesion are aligned, and the detailing of the naos apse is reflected in that of the parekklesion. Moreover, the masons seem to have been inspired by the difficulties of adding to an older building. The self-conscious, "mannerist" style of these late Byzantine complexes may result, in part, from the attempt to design around the historical core of the monastery while maintaining its integrity. In these examples, the masons would appear to be addressing not just new functional considerations but also the symbolic significance of the historical setting.

It may be useful to recall Theodore Metochites' concern with the past and with his own position in history.[22] The considerations we see reflected in the architecture are the same we find expressed in the decoration of the Chora. For example, the Deesis mosaic spells out his ktetoric lineage, perhaps most obviously in the "family resemblance" between Isaak Komnenos in the Deesis mosaic and Metochites' dedicatory image in the adjacent panel.[23] These two portraits establish a sort of visual dialogue with the past that corresponds to the architectural relationships.

[20] For the *oikoi,* see P. Magdalino, "The Byzantine Aristocratic *Oikos,*" in *The Byzantine Aristocracy, IX–XIII Centuries,* ed. M. Angold, BAR International Series 221 (Oxford, 1984), 92–111. In fact, the organizational structure of an *oikos* and a monastery was similar, as Magdalino stresses (pp. 102–5).

[21] T. Macridy et al., "The Monastery of Lips (Fenari Isa Camii) at Istanbul," *DOP* 18 (1964): 251–315.

[22] See the excellent essay by I. Ševčenko, "Theodore Metochites, the Chora, and the Intellectual Trends of His Time," in *The Kariye Djami,* ed. P. A. Underwood, vol. 4 (Princeton, 1975), 15–55.

[23] P. A. Underwood, *The Kariye Djami,* 3 vols. (New York, 1966), 1:42–43, 45–48; 2: pls. 26–29, 36–41; Ousterhout, *Architecture,* 96–100.

The architectural sculpture in these late Byzantine churches may similarly reflect a concern with the past. Among the sculpture, we find both the prominent display of spolia and the imitation of older forms. At the Vefa Kilise Camii, for example, a mixed collection of reused closure panels, columns, and capitals decorates the facade.[24] At the Lips monastery, the pattern of the tenth-century cornice is replicated in the late-thirteenth-century addition.[25] Reuse and imitation are already in evidence at an earlier date at the Pantokrator, where, for example, the distinctive bird cornice of the north church follows an Early Christian model, and many of the liturgical furnishings of the south church were spolia.[26]

Construction

The search for a historical context has gradually narrowed our focus from the city and its neighborhoods to the details of the individual churches. This leads to the third method of analysis, which might be called constructional. A close examination of construction techniques can help us reconstruct the architectural practices of the Byzantine period, for which little textual evidence survives. This, in turn, may place the churches of Constantinople in a human context. Because of the relatively conservative nature of Byzantine architectural design in the centuries after Iconoclasm, it seems likely that architectural drawings were *not* used in most construction projects, and that a minimum of pre-planning was done on site.[27] This means that, unlike architecture today, design and construction were part of the same process, with the details of the elevation determined as the building rose. Indeed, this is the impression we get from Michael Psellos' descriptions of imperial building projects of the eleventh century. At the Theotokos Peribleptos, for example, built by Romanos III, "One on top of another new parts were added, and at the same time another part would be pulled down. Often, too, the work would cease and then suddenly rise up afresh, slightly bigger or with some more elaborate variety."[28] At St. George of the Mangana, according to Psellos, Constantine IX had the design altered and expanded three times during its construction.[29] Although the tone of Psellos's remarks reflects badly on the patrons, his descriptions may represent actual architectural practices. In fact, the final forms of many middle Byzantine buildings are the result of growth and transformation.

The development of the Pantokrator monastery may best be understood in the context of a process of construction similar to that described by Psellos. Although the build-

[24] Ousterhout, *Architecture,* pl. 162.

[25] C. Mango and E. J. W. Hawkins, "Additional Notes," in Macridy et al., "Monastery of Lips," 309–19 and fig. 39.

[26] T. F. Mathews, *The Byzantine Churches of Istanbul: A Photographic Survey* (University Park, Pa., 1976), 10–41 and pls. 10–40, for which a significant Early Christian parallel was found near the Rüstem Paşa Camii and is now in the Archaeological Museum; Megaw, "Recent Work," 345–46 and figs. 7–9. The pieces from St. Polyeuktos may have only been reused in the 13th century or later.

[27] See discussion in R. Ousterhout, "Building Medieval Constantinople," *Proceedings of the Patristic, Medieval, and Renaissance Conference 19/20* (Villanova, 1994–96), 35–67, esp. 44–45; expanded in idem, *Master Builders of Byzantium* (Princeton, 1999), esp. 58–85.

[28] Psellos, *Chronographia, ou, Histoire d'un siècle de Byzance (976–1077),* ed. E. Renauld (Paris, 1967), 41–46; Psellos, *Fourteen Byzantine Rulers,* trans. E. Sewter (Harmondsworth, 1966), 71–75. See Ousterhout, *Master Builders,* 86–127, for a fuller development of this theme.

[29] *Chronographia,* ed. Renauld, 143–51; also Sewter, *Fourteen Byzantine Rulers,* 250–52.

ing was completely irregular in its final form, the structure was too important for us to dismiss its form as simply the unfortunate product of an inept master mason (Figs. 9–11). The master mason, by the way, is named in an addition to the *Synaxarion* as a certain Nikephoros, said to be the *synergates* of the empress and "a new Bezalel."[30] Thus, in spite of what we might think of his abilities, he was held in high regard during Byzantine times.

Following the construction of the south church, the Pantokrator underwent a more or less continuous process of expansion and modification for more than a decade, as our recent analysis testifies. I have been working in conjunction with Metin and Zeynep Ahunbay to document the building for the replacement of the roof, and more details about the building's present state are given in our first report.[31] In the process of restoration, we have been able to make some useful observations about the building's construction history. The south church seems to have been brought to completion before the additions were begun. It was plastered on the exterior, and significant areas of pink plaster are preserved beneath the level of the Ottoman roof. The later Byzantine additions abut this plastered surface, which was left intact (Figs. 12, 13). Evidence of the external plaster is visible where the narthex galleries of the south and north churches join—that is, between Phase 1 and Phase 2, and where the dome of the Phase 3 middle church abuts the Phase 1 south narthex gallery.

Although the construction may be conveniently divided into three distinct phases, there are also indications of sub-phases, that is, of changes that were effected during the construction of each of the churches. For example, the central, funerary church has a unique twin-domed design. The two domes undoubtedly related to the double function of the middle church, divided between a liturgical space to the east and the burial area to the west. The *typikon* suggests as much: the east dome is called the "dome of the Incorporeal," whereas the western area is the "*heroon* of the outside," being outside the bema.[32] An analysis of the construction indicates that the west dome was completed first, and then the east dome was built against it, with some unfinished surfaces where the two join (Fig. 14). The forms of the two domes are actually quite different: the west dome has a ribbed inner surface, whereas the east dome is a pumpkin dome. Where they join, windows in the drums open between them, but their sills and crowns occur at different heights. We may hypothesize that the middle church was begun as a single-domed space, but that its design was modified during the process of construction. Because the plan had already been determined, the east dome had to be constructed above an oblong bay, resulting in its unprecedented oval form.

Another change of design was effected during the construction of the exonarthex. The stepped pilasters and arches of the facade were simplified as the outer narthex was joined to it. The setbacks were cut away to create an angled and slightly concave surface within each arch (Fig. 15). Moreover, sometime during the construction of the exonarthex, the masons decided to increase the height of its vaulting. On the lateral walls, remnants of lower arches are still evident, framing triple-light windows that were subsequently blocked. The outer narthex was apparently intended to have a lower roof level

[30] Megaw, "Recent Work," 342 n. 24; G. Moravscik, *László Ieánya és a Bizánci Pantokrator-monosotor* (Budapest, 1923), 43–47.

[31] Ousterhout, Ahunbay, and Ahunbay, "Study and Restoration."

[32] P. Gautier, "Le Typikon du Christ Sauveur Pantocrator," *REB* 32 (1974): 81, lines 867–68.

that would have corresponded with the height of the inner narthex vaults. It is unclear why this particular change was made, because it has resulted in a space that is lofty but dark, with windows positioned only in the lower walls. Moreover, this change also apparently motivated several other alterations.

The most important of these was the addition of the gallery dome of the south church. The evidence indicates that this was not part of the first phase, but that it was added only after the outer narthex was constructed. Above the present roof, the arch of the central bay rises above the others, with its springing at roof level (Fig. 11). The pilasters to either side are quite broad, and the profiles of the central arcade are considerably simpler than the others, consisting of two setbacks where the others have four. Within the attic below the present concrete roof, the details of the central arcade are considerably different (Fig. 16). There, the pilasters have multiple setbacks and are set further apart; between them, a broad arch springs from a lower point. Within the arch are the setbacks for the original window openings. Just above the extrados of the exonarthex vaults, a line of pink plaster is still preserved, which extends into the window reveals. Built against this are masonry additions that correspond to the window mullions visible above the roof. When did the alteration of the central arcade occur? In the attic zone, the mullions stop above a level of unfinished masonry. This indicates that the modification only happened *after* the exonarthex was added, that is, in Phase 3, when the unfinished area was already covered by the exonarthex roof.

The details preserved in the attic, combined with a careful analysis of the heavily reworked pilasters of the lower facade, allow us to propose a reconstruction of the original facade of the Phase 1 church (Fig. 17). On both levels, it had a flattened arcade over the broad central bay, the height of which corresponded to the other arcades, and broad windows within each bay. Intriguingly, the tall, blocky facade with arcades of the same height recalls twelfth-century Russian churches, such as the Cathedral of Vladimir.

The raising and narrowing of the central arcade bay correspond to the raising of arches to the north and south—that is, to the creation of a square bay for the addition of the dome. The dome blocked the west lunette of the naos, whose painted marble mullions are still visible on the interior. But what motivated the construction of yet another dome in an already complicated building? It was undoubtedly *not* added in response to ceremonial or liturgical concerns. Rather, the construction of the exonarthex had blocked almost all natural light from the inner narthex on the ground floor. Apparently to remedy this gloomy situation, the dome was added on the gallery level and the floor of the gallery immediately beneath removed, creating a lightwell to illuminate the main entrance to the naos (Fig. 18).[33] A similar lightwell was constructed later in the twelfth century at the Kalenderhane Camii, perhaps inspired by this example.[34] At the Pantokrator, however, the lightwell was clearly the result of a step-by-step process of modification.

The observations on the Pantokrator are preliminary and, doubtless, will require some nuancing after we are able to examine other areas of the building fabric. Nevertheless, they give a good indication of the number of modifications and changes in design

[33] Megaw, "Recent Work," 343.

[34] Striker and Kuban, *Kalenderhane*, 94.

that could occur in a single construction project. If this is a reliable indication of architectural practices at the highest level of patronage, the implications are significant—for both architecture and the Byzantine rhetorical tradition. As Henry Maguire has argued in relationship to Byzantine gardens, Michael Psellos might actually be telling the truth about Byzantine construction practices, in spite of his ironic tone.[35]

In more general terms, the detailed technical examination of buildings may help us reconstruct workshops and workshop practices, and may assist us in tracking the dissemination of architectural ideas in a more concrete way than do the elusive "influences" and "appropriations" based on stylistic analysis that are the stock-in-trade of art historians. An often-cited example is the so-called recessed brick technique, a hallmark of Constantinopolitan architecture of the eleventh and twelfth centuries, in which alternating courses of brick are set back from the wall surface and covered by what appear to be exceedingly wide mortarbeds.[36] Probably too much has been said about this technique already, but it is important because its distinctive details were invisible in a completed building, and it could have only been learned through direct participation in the construction process. These and similar details may help us identify individual workshops, a subject I have developed more fully in a recent study.[37] The appearance of the recessed brick technique in such far-flung locations as Kiev and Jerusalem, for example, indicates the presence of workshops from the capital.[38] Other seemingly insignificant details, such as the pattern of putlog holes left by scaffoldings built into the walls, the impressions left by formwork, and incisions in the mortarbeds may also be useful in the identification of workshops.[39]

To sum up, what we are able to say about a Byzantine building is often limited by the questions we ask. If our analysis of a Byzantine church is restricted to typological analysis, or to the liturgical organization, or if it is simply presented as a backdrop for historical events or in the context of patronage, we have not learned all we can from it. We should be able to read a building, just as we read a text, as a historical document, for it can tell us much about the society that produced it. The details preserved in buildings and their sites can help reconstruct a context for the Byzantine churches of Constantinople—whether that context is the surrounding neighborhood, the site's history, or the lives of the artisans who formed a significant element of the urban workforce. All were a part of the fabric of the city.

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[35] H. Maguire, "Gardens and Parks in Constantinople," in this volume.

[36] P. L. Vocotopoulos, "The Concealed Course Technique: Further Examples and a Few Remarks," *JÖB* 28 (1979): 247–60, with additional bibliography.

[37] Ousterhout, *Master Builders,* 169–84.

[38] For Kiev, see H. Schäfer, "Architekturhistorische Beziehungen zwischen Byzanz und der Kiewer Rus im 10. und 11. Jahrhundert," *IstMitt* 23/24 (1973–74): 197–224; for Jerusalem, R. Ousterhout, "Rebuilding the Temple: Constantine Monomachus and the Holy Sepulchre," *Journal of the Society of Architectural Historians* 48 (1989): 66–78.

[39] Ousterhout, *Master Builders,* 181–92; see also G. Velenis, *Ermenia tou Exoterikou Diakosmou ste Byzantine Architektonike* (Thessalonike, 1984), and A. Pasadaios, *Ho keramoplastikos diakosmos ton byzantinon kterion tes Konstantinopoleos* (Athens, 1973).